

AMENDMENTS TO THE DRAWINGS

Replacement drawing sheets for Figures 10A, 10B and 11 are submitted herewith in order to address the Examiner's objections.

REMARKS

By this amendment, claims 1 and 3 have been canceled and claims 5 and 6 added. Thus, claims 2 and 4-6 are now active in the application. Reexamination and reconsideration of the application are respectfully requested.

The specification has been amended to correct a typographical error and make minor grammatical improvements. No new matter has been introduced.

On page 1 of the Office Action, drawing Figures 10A, 10B and 11 were objected to for failing to designate the figures as prior art. Replacement Figures have been prepared and submitted herewith labeling Figures 10A, 10B and 11 as Prior Art. Entry of these replacement drawings is respectfully requested, and it is respectfully requested that the Examiner indicate approval and entry of these drawings in the next Office Action.

On page 2 of the Office Action, claims 1-4 were rejected under 35 U.S.C. §103(a) as being unpatentable over either Larson (US 3,294,131) or the Japanese reference (JP 3-40504). The rejection of claims 1 and 3 is now believed moot in view of their cancellation. The rejection of claim 2, as amended hereinabove, and claim 4 is respectfully traversed for the reasons following.

For the Examiner's convenience, a discussion of the arrangement and the advantages of the invention as recited in the new claims will be made with reference to the drawing figures. However, reference to any particular portion of the present application is illustrative and not intended to limit the scope of the claims.

With exemplary reference to Fig. 1, claim 2 sets forth a demolition cutter comprising: stationary bracket 1, carrying rotary joint 26, which can be connected to an arm of a construction machine; movable bracket 3 rotatably coupled to the stationary bracket 1 and including a pair of opposed side plates 6 (parallel to the plane of the drawing); an arm pin 8 extending between the side plates; a pair of cutter arms 9a and 9b pivotably mounted on the arm pin 8; and a pair of cylinders 14a and 14b, each connected to one of the cutter arms, which are extended and retracted by hydraulic pressure in the cylinders. At least one of the central axes of the cylinders is

offset from the cutting plane, as in Fig. 4. Referring to Fig. 7, each cylinder 14a or 14b comprises: a cylinder body 15 connected to one of the cutting arms 9a or 9b; a piston 16, which divides the cylinder body 15 into a front chamber 17 and a rear chamber 18; and a piston rod 19, formed with two oil passages 20 and 21 communicating with front oil chamber 17 and rear oil chamber 18, respectively. Rotary joint 26 includes rotary cylinder 28 formed with two pairs of oil ports 31 and 32 which are connected to the oil passages 20 and 21 in piston rods 19 of the two cylinders 14a and 14b.

In the present application, the cylinder body 15 is connected to a cutting arm 9a or 9b and the piston rod 19 is connected to the movable bracket 3. Thus, as the cylinders 14a and 14b extend and retract to pivot the cutter arms between the open and closed positions, there is some angular movement of the piston rods 19 in the plane of motion, but no radial movement. The cylinder bodies 15 move in the radial direction when the cylinders 14a and 14b are extended or retracted. Thus, the piston rods are always protected by the pairs of plates 6 and 7. Furthermore, the piston rods are formed with passages for communicating the hydraulic oil to the front and rear chambers 17 and 18 in the cylinder bodies. This allows the hydraulic operation of cylinders 14a and 14b while minimizing the length of required hydraulic line and protecting the hydraulic line inside the pairs of plates 6 and 7. These features provide substantive benefits over the prior art of record, and cannot be dismissed as merely arbitrary design choices.

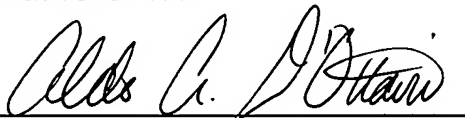
In contrast to the present application, Larson (*e.g.* Fig.5 therein) and JP '504 (*e.g.* Fig.1 therein) teach a cylinder body, fixed to a pivot, and a piston rod attached to the cutter arm which extends or retracts to close or open the cutter arms. There is no motivation or suggestion to alter the configuration of the cylinders. Furthermore, no details of the hydraulic assembly used to extend and retract the cylinders are given in the drawings. While the use of oiling passages is well known in general, the use of passages in piston rods is not conventional in the art, and a person having ordinary skill in the art would find no teaching, motivation or suggestion to do so in the references of record. Accordingly, it is respectfully submitted that the present invention as recited in claim 2, as well as claims 4-6 which depend therefrom, is clearly allowable over the prior art of record.

In view of the foregoing amendments and remarks, it is respectfully submitted that the present application is clearly in condition for allowance. An early notice thereof is earnestly solicited.

If, after reviewing this Amendment, the Examiner feels there are any issues remaining which must be resolved before the application can be passed to issue, it is respectfully requested that the Examiner contact the undersigned by telephone in order to resolve such issues.

Respectfully submitted,

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December 7, 2006